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THE DOCTRINE OF THE EJECT

III. The Doctrine of Instinctive Knowledge

IN the present paper I propose to bring forward some thoughts suggested by Professor Strong's treatment[1] of the eject. And I can not forbear, at the outset, to comment upon the extraordinary clearness and charm of the author's writing, and upon the acuteness of the observations with which one meets in many passages. Professor Strong may be wrong in some things; but there is never any doubt as to what he means, and his book may be recommended as a model to those who believe that philosophers should engage in the open, and not shoot wildly at one another out of a thicket of verbiage in which no object can be distinguished with clearness.

Professor Strong thinks it hardly necessary to offer proof of the proposition that, for each of us, the minds of other men and animals are not empirical facts. He holds that those who seem to think that other minds are immediately known, really have in mind the certainty of the knowledge rather than its immediacy. I see another man's body; I *infer* his mind—a something real, yet wholly and inevitably beyond my consciousness.

This argumentation, it is claimed, neither rests on nor requires the proof of other minds: it takes them for granted. The justification of this belief, we are told, is a problem which has been too much neglected by philosophers. It is customary to explain it as resting upon an argument from analogy, thus: Other men make movements which resemble those due to thoughts and feelings in myself; consequently they have thoughts and feelings just as I have.

The analogy Professor Strong regards as imperfect. My own thoughts and feelings are known to me immediately. Those which give rise to other people's movements are not given. Now, if in the case of one other person I knew intelligent movements to be due to thoughts and feelings not given (to me), I could draw the inference from the movements of a third person to his thoughts and feelings. The analogy would be perfect. But when I argue from my thoughts

[1] See Chapter X., "Why the Mind has a Body." New York, 1903.

and feelings, which are given, to another person's thoughts and feelings, which are not given, I pass to a new mode of existence, and the conclusion is not warranted by the premises.

From this consideration Professor Strong is led to maintain that I can have no rational ground for assuming that anything whatever exists outside my mind. "No argument from analogy can possibly prove the existence of things extramental."

This does not mean that the existence of other minds is denied or even doubted. On the contrary, it is held that we know with *perfect certainty* that they exist. But it is claimed that we have here a kind of knowledge founded neither on reason nor experience, but on *instinct. That* there are other minds, we know by instinct; for information as to *what they are like,* we must fall back upon the argument from analogy criticized above.

Before speaking of the doubts which arise in my mind when I reflect upon Professor Strong's doctrine, it is well that I should emphasize certain truths which, in my opinion, it very justly maintains. In the first place, it is held that we are not directly aware of the minds of other men and of the brutes. This seems to be in harmony with common sense and with science; and any attempt to prove the contrary doctrine is, I think, doomed to inevitable failure. In the second place, it is pointed out that we reach other minds by making an *inference,* and that we are guided, touching what we shall infer, by an argument from analogy. In the third place, it is recognized that men do not expect to verify this inference as they verify inferences which have to do with physical facts. If I am in doubt whether a certain man really feels the emotion which he seems to express, I do not look to resolve my doubt by a direct inspection of his consciousness. In the fourth place, it is insisted that, notwithstanding all this, men do not really doubt the existence of other minds. Our knowledge of them is held to be certain.

In all this I agree with Professor Strong point for point, and I am glad that he has marked out the problem of the eject with such clear lines. The points around which my doubts cluster are: (1) His statement that the argument from analogy is imperfect, and furnishes no rational ground for the assumption of other minds; and (2) his maintaining that instinct furnishes a basis for the inference, and supplements the deficiencies of the argument from analogy.

Let us consider, first, the statement that the argument from analogy is imperfect, and that it does not justify the inference to other minds. We are reminded of the reflections of Huxley and Clifford—of the former's statement that we can not absolutely prove any consciousness beyond our own; of the statement of the latter,

that he can not pretend to say how the inference can be justified. The objection is the usual one: in drawing inferences touching physical things, we have verification of such a sort that we can, at least, come back to direct inspection somewhere and sometimes. Here such verification seems to be excluded; how, then, be sure of the truth of our inference?

But, even admitting this difference between the inductive reasonings which have to do with material things and the analogical inference to other minds, I feel like demurring to the statement that we have no rational ground for our inference. What is a rational ground? What have we a right to mean by the word *rational?* And what may we justly mean by *proof?*

What is our procedure in the case of inferences touching physical things? We find x to be related to y in one or two or three instances; we have reason to believe that the connection is not an accidental one, and due to the presence of other factors. We observe an x in a new instance, and we infer a y. In certain cases, we can verify our inference, and observe that we have not been mistaken in connecting a y with our x. With renewed confidence, we pass on to other cases not yet verified, and some of them not directly verifiable. This we call rational; we do not regard ourselves as without proof for our inferences.

One may learn a good deal from that acutest of analysts, David Hume, even when one refuses to fall in with his skepticism. Long ago, Hume maintained that an appeal to past experience decides nothing touching a present case. I do not, of course, agree with him; but I should like to call attention to the fact that, in every inductive inference, we are going beyond the *verified,* and are assuming that we are concerned with what is *verifiable.* Just as soon as any inference is directly verified, we have no longer to do with an inference, but with experienced fact. Every inference, so long as it remains an inference, is based upon an assumption. Shall we say that it is not rational? that we have no proof of its truth?

Surely not. Such inferences are the very type of what is rational. This is what we mean by the word, when we are working in this field. In all our reasonings, we must come back to something that is ultimate. The only question is: What shall we accept as ultimate? And I know no other way of settling this than by making a careful analysis of human experience as it presents itself in common life and in science. Both in common life and in science inductive inferences are accepted as reasonable. On the strength of them, our knowledge of the world is built up. A doubt of them seems gratuitous. To suggest that they are unreasonable is itself unreasonable.

Now, assuming that the consciousnesses of different persons are cut off from each other in such a way that they can never be made matter of direct inspection, we must admit that the argument from analogy which leads to other minds is not to be confounded with the inductive argument that leads to the assumption of physical facts. Shall we, on that account, repudiate it? Is it reasonable to do so? The objection brought against it is, that it does not come up to the standards set by the inductive argument. But it is a fair question whether we have a right to judge it by this standard at all.

Let us consider the rôle which the argument actually plays in our knowledge of the world of matter and of minds. What do we know of what goes on in the brains of men and of the brutes? How do we arrive at a knowledge of what they will do under given circumstances? I have trod the usual road of those who study the physiologies and who make dissections, and I frankly admit that the comparative smallness of the psychological harvest has been depressing. Such studies are undoubtedly to be recommended, if only as a useful expedient for keeping one's feet on the ground and counteracting the tendency to unwarranted philosophical flights. But what I know of another man's character and probable course of life, I do not know through an acquaintance with his cerebral machinery.

Nevertheless, I know a good deal about other men. Sometimes I can guess what a man will say, before he has spoken. Sometimes I know the very objections which he will formulate and put into print when his book is criticized. I know that Smith will answer rudely, and that Jones will turn away wrath. Every day and all day I am attributing ideas to other persons, and, with the aid of this expedient, I am satisfactorily explaining and predicting their actions. And in all this I follow the guidance of the abused argument from analogy, and nothing else.

Nor is the verification of particular facts—in a certain sense of the word verification—excluded. To-day I infer that Cæsar is ambitious; to-morrow I conclude that I was mistaken. In each case I depend upon evidence. Where the evidence, the analogical evidence we have been discussing, is full and satisfactory, no one thinks of harboring a doubt. Indeed, he who complains that his inference to other minds can not be justified, on the ground that verification by direct inspection is out of the question, should be brought to a realization of the fact that his *doubt* of the inference can not be justified either, and for precisely the same reason.

Does it not seem to follow from this that either proof or disproof, when we are concerned with the inference to other minds, must not be looked for in the same quarter as it is when we have to do with

physical things? May our inference not be *rational,* although not the same as the ordinary inductive inference? What has the word "rational" a right to mean? Surely, only an investigation into its actual use can help us to answer this question.

As to the second point: May we fall back upon instinct, and maintain that it assures us that other minds exist?

It should be remarked that our power to infer other minds extends just so far as the analogical argument will carry us, and no farther. Where the analogy fades out, our inferences fall away. Neither instinct nor anything else appears to give us an independent knowledge "that" other minds exist, leaving it to the argument from analogy to fill in the hollowness of the "that" with an intelligible "what." The whole burden of proof seems to be borne by the argument from analogy.

If, then, we are to fall back upon instinct for anything, I suppose we must content ourselves with saying that instinct tells us that the argument from analogy is *valid.* Of course, it remains for us to inquire what the word "valid" means in such a case. It can not mean that this argument is identical with the usual inductive argument, for, as Professor Strong has pointed out, it is not identical with it. Apparently it can only mean that we find ourselves confronted with an ultimate fact, and need not try to get beyond it.

But do we use the word "instinct" properly when we employ it in this way? We commonly call that instinctive which is not done with a clear consciousness of its end and meaning. The child instinctively draws the inference to other minds. It is not, in such instinctive inference, guarded against error, for it may attribute mind to a doll. The grown man constantly infers other minds with little reflective consciousness of what he is doing. One may, however, be very clearly conscious of the nature of one's inference, and may be acting in the light of reflective thought. In other words, whether we shall call the inference instinctive or not seems to be determined by the degree of mental development of the individual we are considering. In calling any activity instinctive we are not offering a justification of it; we are merely pointing out that it is exercised rather blindly.

Let us turn again for a moment to the inductive argument as it has to do with physical things. One may draw this inference without reflection, or one may be clearly conscious of the process. That is to say, one may reason instinctively or one may reason consciously. But one can hardly say: *What* one is to infer, in any given case, is a matter of inductive reasoning; *that* one is justified in passing at all from past experiences to a new instance, is guaranteed by instinct, and thus is the Humian doubt laid to rest.

Professor Strong has suggested that those who think that other minds are immediately known probably have in mind rather the certainty of the knowledge than its immediacy. I can but believe that what is most prominent in his own thought is the truth that the argument from analogy must be accepted as ultimate and as trustworthy even in the absence of such verification as we may look for in the world of physical things. In this I think he is entirely in the right. But I should call the inference to other minds rational, and I should not regard it as any the more certain because it is sometimes drawn instinctively.

There is one further point upon which I should dwell before closing this paper. In the above, I have purposely taken the usual position, which looks upon two consciousnesses as always and inevitably "ejective" to each other. But in Professor Strong's book (p. 222) there is an acute passage which reads as follows: "Memory is not our only means of communication with our past experiences, and reproduces for us but a minimal part of our mental history. In filling in the gaps we are reduced to conjecture, based on inference, the testimony of others, etc. Now, such conjecture presents the closest analogy to the process by which we infer other minds."

This passage I had not read when my "System of Metaphysics" went to the press, or I should certainly have commented upon it. The same thought had occurred to me, but I had found in it a significance[2] which Professor Strong has not found in it.

The point is this: My own past experiences may be known to me in two ways—I may *remember* them, or I may *believe in* them on the basis of such testimony as leads me to believe that other men have had or have certain experiences. In other words, I may know such experiences—to use Clifford's terminology—either as *object* or as *eject*. Now, when I am told that, at a certain time in the past, I said or did certain things, I may accept the fact, and yet may be quite unable to recall at once the occurrences in question. Nevertheless, if the circumstances are dwelt upon and the matter pondered over, I may come to remember what has been forgotten.

This means that, in certain instances, *what has been known only as eject may come to be known as object*. The experiences are common enough, and I think their significance has been overlooked only because men have not sufficiently reflected upon them.

When we add to these the familiar phenomena of the hypnotic trance, of multiple consciousness, etc., phenomena upon which I have dwelt at length in the volume referred to above, we are, I think, compelled to admit that we are not justified in maintaining that what is

[2] See Chapter XXVIII.

at any given time ejective to a given consciousness must necessarily always remain ejective to that consciousness. There are sufficiently numerous cases in which the existence of other-consciousness seems to be directly verifiable in a way closely analogous to that in which the common inductive inference is verifiable. Something may be inferred as eject, and later presented immediately as object.

To be sure, there are limits to such verification. When Peter and Paul lie in the same bed, they remain Peter *and* Paul, and are ejective to each other. But when Peter and Paul lie in the same brain, we have sometimes Peter *and* Paul, and sometimes Peter-Paul. I think this is not without its significance for the doctrine of the eject.

However, I do not mean to base upon such facts the reasonableness and the certainty of the inference to other minds. If no such fact existed, I should still hold the inference to be rational and trustworthy. As I have said above, we can only discover what the word "rational" means by an examination into the actual use of the word; and I have further indicated that he who doubts whether we may make the inference to other minds, on the ground that other minds can not be perceived as can physical things, must admit that his doubt is a gratuitous one, and can never by any possibility be *proved* to have a foundation. Where both proof and disproof are, by hypothesis, wholly out of the question, we do not seem to have a problem before us at all. Certainly we are not in a position to complain that we lack proof of something. If men believe in the eject, and think that they have in some instances proof of its existence and in others no proof, it is clear that they are using the word "proof" in some sense that has a bearing upon the matter. It is not our duty to give the word a meaning of our own; it is, rather, our duty to find out what men mean by it in common life and in science.

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CONCRETE CONCEPTUAL SYNTHESIS

IN the theory of knowledge and in psychology we find a place given to perceptual synthesis and to abstract or general conceptual synthesis, but not, so far as I can discover, to concrete conceptual synthesis. By concept I understand a meaning marked off by a symbol, which has always a constant significance, though amid the varying contexts which the symbol at one time and another *suggests* it may be hard to say what is the meaning which it always has. If the meaning change then we have a new concept, not a changed one; for the new may be compared with the old concept.

A concrete concept, I understand, is a concept of a particular object. In the sentences "Charles I. was beheaded in London" and "I shall go to London next summer," there must be a constant meaning that enables me to conclude that I shall go to the city where Charles was beheaded. But it is only in the *sciences* of concrete conceptual synthesis, namely, history and geography, that it is possible to state approximately what the meaning of such a concrete concept is. Concrete conceptual synthesis is the joining of such concrete concepts, not under a generalization, as when we say that London, Leeds and other places visited are all cities of England, but in the concept of another particular object. Thus the concepts "London" and "Leeds" are in geography parts of the concept "England," of the concept "Great Britain," of the concept "Europe," etc.

In logic, in psychology, and in the theory of education I find no clear account given of this type of organized knowledge. This has resulted, I believe, in a serious and sufficiently obvious defect in educational practise. It seems that educators, following the lead of the logicians in this matter, have in their theories of education ignored an essential and obvious part of the process of acquiring knowledge. Hence I venture to conclude that in the works of English speaking logicians, at least, there is an appearance of neglecting the corresponding part or side of knowledge itself, or of confusing it with another part.

I will offer an illustration of concrete conceptual synthesis in which the particular objects are not things, but events. As I go into a village post-office, the postmaster with his assistant is loudly disputing with a villager concerning the delivery of the mail, on a point in which the village as a whole opposes the officials. In spite of their different motives the master and his assistant have the same purpose, and in respect of that purpose are proper subjects for comparison, abstraction and *generalization*. But the office and the village, in spite of their opposing purposes, are a unity in this respect, that the end toward which they actually are working is one; they are united, not through a common purpose, but by a single tendency. Their actions are parts of one and the same action. When the dispute is settled it will be settled for both at once. They move together in one direction, fighting each other, and little knowing, perhaps, what results they actually are bringing about in concert.

The recognition of all these points may occur as I listen, and form, indeed, according to current terminology, part of my percept, of my consciousness of particular material objects present to sense. If, however, the event should become the subject of investigation

and record, if it should even enter the gates of history, it will there assume the character of a concept. For certain features will be marked as essential and constant, and those features will be *meant*, whenever the dispute is referred to. It is so with the Battle of Lexington; the historian says that the affair was *essentially* this and that. The name "Lexington" may call up, may suggest many other things that are not essential. But the concept "Battle of Lexington" has a certain meaning distinct from accidental suggestions. That meaning is determined by the nature of the history that is being written; it is not the same in an English or a universal history as in an American history.

In the body of history certain concepts have attained meanings which survive criticism, and are regarded as fact. They are universal in the sense that they are looked upon as things or events that might have been experienced by any one who was present, rather than as a mere individual memory of one or more persons who happened to be present. But they are in no way general, being the concepts of individuals or of particular events. They are none the less scientific, for they are essential parts of the web of past fact that the science of history has woven; they are organized knowledge. And, in like manner, the village of Lexington is part of the organized knowledge which is the subject-matter of geography. These two sciences, geography and history, I urge, are sciences of concrete, as distinguished from abstract or general, conceptual synthesis.

It would seem that the primary function of the geographer in times past was to describe the concrete existent world, not in terms of general laws, but as a particular fact made up of many particular facts which have their place in the world. From the traveler he learned what reactions the world offered in this part and in that to one who should go there from curiosity, or for trade, or for conquest, or with missionary zeal. And still, to-day, however interested we may be in the laws that are exemplified in the various parts of the world, our first interest is to know what is *there*. We seek a clear conception of the different parts of the world as a concrete whole, that we may know what reactions it will offer to our enterprise.

But the first great historical synthesis of which we know was written, not to speak of possible reactions, but of past actions;[1] not to inform us of a world alien to us and reacting to us, but of the world at one with us, acting with us. Herodotus says that he would

[1] I elaborate this position in my dissertation "The Concept Action in History and the Natural Sciences," Macmillan, 1905.

inform the heroes of the Persian War in how great an action they had participated. He therefore would present the quarrel of Hellen and Mede from its beginning, in all its extent. The actions of the Greeks then living and listening to him formed part of this great action, and derived their significance from their place in it. History, therefore, like geography, seems primarily to be a concrete synthesis, a placing of definite concrete concepts in an organized concrete conceptual whole which is the material of the science of history.

We have, then, it seems to me, two sciences of concrete conceptual synthesis, to be distinguished from such sciences as biology, geology, sociology and psychology, which have to do with abstract or general conceptual synthesis. But one may read through Mill's "Logic," Jevons's "Principles of Science," Hobhouse's "Theory of Knowledge," and Pearson's "Grammar of Science" without getting any account of such a distinction. We receive but a hint here and there, in Hobhouse's work, of a type of scientific conceptual synthesis radically distinct from that of generalization.

And if we turn to books on educational theory we find the same position assumed, the same ignoring of a second type of knowledge and science no less important than that of generalization. In their well-known and most effective little work "The Method of the Recitation," Drs. Charles and Frank McMurry assert that "eminent authorities on teaching now agree upon this law" that the acquisition of knowledge consists in proceeding from individual to general notions (p. 289). I have referred to the eminent authorities and have found no exception to urge. These educators appeal also to current psychology for support of their assertion that knowledge is essentially of this one type; and indeed, with the exception of the "psychology" Professor Dewey published nearly twenty years ago, there is, in English and American psychologies, so far as I can discover, no suggestion that knowledge is dual in character, and that there is a science of organized concepts of particular objects.

If one considers the process of acquiring knowledge, the distinct character of concrete conceptual synthesis, and its importance, become more evident. Even before he learns general truths there slowly grows in the child's mind a concrete synthesis of house and room, school and street, city, river and hill, countries, continents and oceans, all of them parts of that world which he is to know, which is the material, near or far removed, of his life. This concrete synthesis, in the course of school instruction, comes to deal, not with mere percepts and images, but with concepts, as the material of that synthesis takes clearer definition and becomes more thoroughly organized. Thus it is a matter of conceptual synthesis and of sci-

ence, though not of generalization, that Bombay and Calcutta are cities on the two coast lines of India, distant so far from each other, knit by road and rail and telegraph, and related commercially and politically in certain concrete ways.

It is upon the basis of such a concrete synthesis, which is geographical in the old sense of that term, that the child can with comprehension build his knowledge of general truths, economic, geologic, etc. Before the child is capable of appreciating that Minneapolis is "the chief representative and type of this whole series of cities on the upper Mississippi River,"[2] he must master the more interesting fact that Minneapolis is *there,* related concretely in divers ways to other parts of the world.

The second type of concrete conceptual synthesis, the historical,[3] also precedes the appreciation of general truths. An important foundation for all historical synthesis is laid by securing from the child a correct narration of his experience, and by leading him to compare his account with those of others. Thus is built up the notion of a single great line of events, of things that actually occurred; which is known in different ways by the several children present, but which can be known in substantially the same way, at least in several respects, by all. Slowly the knowledge of the one reality that is potentially common to all knowledge broadens. The child becomes conversant with the stream of history; he builds up an intuition of the years within the whole of time.

A second basis for historical knowledge is laid in the stories of the heroes of the world and of its martyrs, which give comprehension of the actions that are possible. But historical synthesis proper begins for the child when he is invited to learn in what great actions his own small life has its place. To this end in our public schools he learns to conceive the activity of his country, the course of action which gives unity to its history, and which indeed constitutes its history and its life. In this greater action the agencies of men, of cities and states take part. While in our religious schools the child is led to see the place of his life and action in the progressive action of God's church and kingdom. Gradually a concrete synthesis is attained of the world's history, in which party strife, territorial expansion, industrial progress, intellectual advance and spiritual uplift somehow coexist, forming, in some measure and in some sense, a single action which we feel as the life of the world.

I think it is a fair criticism of present American education that

[2] "The Method of the Recitation," Macmillan, 1905, p. 23.

[3] The distinction that history is temporal, while geography is spatial, is, I think, not correct; for history is clearly spatial as well as temporal.

in teaching geography it partly sacrifices the knowledge of the world as a concrete fact and as the material of man's life for the knowledge of those natural and social laws which prevail in the world, through obedience to which men make use of that material. In like manner, it sacrifices the knowledge of the life of our nation, as a concrete object that commands our love and service, for a knowledge of the laws that govern social life. Thus, in the work which I selected as typical, the aim suggested for the lesson on the Battle of King's Mountain is the generalization: "The common people, therefore, out of their own love of liberty and on account of their great courage and energy, contributed much to the success of the Revolutionary War."[4] It is not suggested that the place of that battle in the drama of the nation's awakening is, after all, the most important thing about it; in fact such an opinion is apparently barred by the principles which the book, in common with "eminent authorities on teaching," adopts.

The ethical significance of the point I urge is surely very great. Mr. Bryce has made us familiar with the sincerity of the medieval conviction that men lived and moved in a greater life, the "mysterious unity" of the Holy Empire. Other times, other methods; the same lesson of solidarity has to be taught now; and it must be taught, not as a matter of faith, but of knowledge and science. But the existence of the greater unities of life and action can be known, not by perception, nor by generalization; it is a matter of concrete conceptual synthesis, of historical construction.

Again, social action requires knowledge of the individuals with whom we act. The application of generalizations in interpreting the conduct of another would carry us only a little way, and, perhaps, mislead. The study of the person's life as a concrete unity, a particular synthesis of particulars, reaching back into the years, and combining many phases of the soul's activity, is a more helpful and a truer method of study. Need it be said that our present theory of instruction emphasizes the former habit of dealing with facts, and even discourages the latter?

It would be most instructive to contrast the type of mind that deals in generalizations with the mind that grasps conceptual unities concretely. It is the latter alone which becomes acquainted with the great things of the earth, which can enter into the life of civilization, or of Christendom, or of his own nation, and of his own locality. He alone can form a clear idea of the singleness of action and life which may underlie the conflicts of the several parts of that life. In generalization the wider the application of the principle,

[4] "The Method of the Recitation," p. 281.

the poorer are the particular objects to which it applies; but in concrete conceptual synthesis the most highly organized knowledge deals with the most remarkable and meaningful of objects.

What, then, may we ask of the logician, that he may aid the educator and the moralist to appreciate duly this type of knowledge and science? The first obligation is to mark distinctly the characteristics of the sciences of geography and history in contrast with the character of all sciences of generalization. Here is work for which Kant in his third critique, Hegel in his "Logic" and his "Philosophy of History," Droysen in his "Principles of History" and Rickert in "Die Grenzen der Naturwissenschaftlichen Begriffsbildung" have prepared the ground.

The second is to lay down the principles that govern this type of knowledge and science, and to list the several types of concrete conceptual synthesis that are possible. Merely to illustrate what I mean, I suggest that in historical construction proper the synthesis of particulars is always in terms of the tendency that is common to them both; but community here differs from that found in the sciences of generalization, because the tendency that is said to be common to agencies is that *in which* they unite, and not that which exists *in each of them.* The common tendency that unites us as Americans in the destiny of the nation is greater than any tendency that can be found in us as mere individuals. Whereas the common tendency that biology or sociology may find in us all is but a poor part of the richness of each individual life. The common tendency which unites clerical and republican in the life of France is probably not to be found either in the republican or the clerical party; it exists through their strife, the hidden harmony their opposition creates.

Another principle is worth noting because it also marks a difference between the terminology current in the logic of generalization and that which would prevail in a logic of concrete conceptual construction. Every concept involves a distinction between the constant meaning of a symbol and the accidental associations which may occur with greater or less frequency. I mentioned the Battle of Lexington to illustrate this fact in the case of a concept of a particular object. Such a distinction involves stripping the object of some of the richness of perceptual or emotional life that may pertain to it. It is no part of the concept of the Battle of Lexington that one of the British officers had red hair and loved a maid in Staffordshire.

In the sciences of generalization a similar impoverishment takes place. In sociology, *e. g.*, the Battle of Lexington would be classed with those of Bennington and King's Mountain in respect of its

origin and other characteristics, and outside such characteristics that battle would have no content for the sociologist, as such. As such sciences attain greater perfection the objects possess less and less content. The relations expressed in the general laws discovered possess the content. The widest generalizations are those that apply to the smallest particles of matter, or to biological elements and their specific functions.

The difference, then, to which I referred is this: that whereas in the sciences of generalization, the more highly organized the science the poorer the concept of any *object* to which the generalizations apply, on the other hand, in the sciences of concrete conceptual synthesis, the concept and definition of an object are the richer the more highly organized historical and geographical science becomes. Thus the concept of the Battle of Lexington is to the historian exceedingly rich in essential content, in spite of the abstraction from perceptual elements to which I have referred. It is not the relations, merely, in which the object stands that make it of importance. The participants are *conceived* as actually bringing, in their ways of thinking and ways of acting, the products of the conditions which resulted in the battle.

Other suggestions towards a logic of concrete conceptual science will be found in Rickert's work already mentioned; and I have brought together some points in my dissertation (*vide supra*), especially in Chapter VI. I am convinced that proper instruction in history and geography will not be given until the logician brings home to the educator the radical difference between the two classes of knowledge and science which is the theme of this essay.

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THE ANTI-REALISTIC "HOW?"

AGAINST natural realism as a theory of knowledge the critical query is raised, "How can consciousness perform such a self-transcending function?" One eminent exponent of another view epithetizes this as the "putty, magical faculty theory"; another declares emphatically that the consciousness relation "ought not to remain a pure mystery"; and there is a general philosophical sentiment that the fatal weakness of natural realism is its failure to "explain" perception. Restatements of the conception in vivid metaphor or plain Anglo-Saxon, all such expressions as "The mind actually *grasps* its object," or "The object is *as* the mind thinks it," result only in making the significant word or phrase a target for the insistent question, "What does this *mean?*"

Now natural realism has difficulties enough without being obliged to acknowledge this one. There certainly is no satisfactory answer, but this is due, I suspect, not to the falsity of the theory, but to the meaninglessness of the question itself. The latter, indeed, implies that the realist is under obligation to reduce his conception of consciousness to lower and more intelligible terms,—but is there such obligation? We recognize similar questions about indubitable facts which have no answer: "How can a body move?" "How can a body exclude other bodies from the space it occupies?" "How can one event follow another?" "How can a thing change and yet remain the same?" They range from absurdities like "How is being made?" to investigations of empirical facts such as the falling of a stone. To them no answers can be given which do not contain the very ideas, motion, temporal succession, identity through difference, etc., that are under fire. Details and accessories of the process may be elucidated, but the essential character is implied throughout. Is it not possible, therefore, that the self-transcendent character of consciousness, its perceptive power, is fundamental? If so, the critical question is manifestly unwarranted, and the appropriate reply would be, "Why do you allege a suspicious mystery in what is a given fact? It is no more marvelous for a being to perceive something other than himself than for him to move to another place."

Rebuttal of this defense will naturally assert either that self-transcendence is no such unmistakable fact as motion, or that a fact of experience may properly require explanation, however indubitable it is as a fact.

On the first point there will be little difficulty if we stop trying to imagine how self-transcendence *looks;* if we do not endeavor to objectify it as a ghostly photography or shooting out of rays from an extended picture in the brain. The fact itself, namely, that a conscious being knows the real nature of something not himself, that I and the object of my attention are different items in the universe, and that I know to some extent what my object really is, this is beyond denial. Its alternative is plainly false. The concept of consciousness may seem paradoxical to reflection, just as the concept of motion seemed teeming with paradoxes to some ancient Greeks, but the experience is as well assured in one case as in the other. The only reason for remarking it is that we occasionally find anti-realistic epistemology making statements suggestive of doubt about it. There is a natural tendency to relieve the tension of a paradox by denying the reality of the fact to which it refers. But a paradox is often only an imperfectly formed conception, and its

proper solution is then simply a more careful restatement. In the meantime the fact under consideration loses none of its respectability. And so it is with perception. It is a fact of my being, and its object is not in general itself or myself. This "external reference" can not be eliminated.

But the main difficulty does not lie here. What is ordinarily demanded is not evidence, but an explanation. The question is, "*How* can consciousness perceive its objects?" and this need not imply skepticism as to transcendence, but only a desire to know more about it.

The various epistemological theories, materialistic, idealistic, pragmatic, have all been attempts to understand the process by relating it to or identifying it with other processes. The first gives us scientific details of intermediary physical processes, but obviously this does not meet the difficulty. Idealism offers a curiously fascinating conception, but the transcendence in question is explained only by substituting for it another and equally puzzling transcendence. And lastly comes pragmatism, enveloped in so much smoke and noise of conflict as to make its battlefield seem the last place to approach with the hope of understanding anything clearly. So far, however, as its exposition deals explicitly with our difficulty—the difficulty remains. If the real distinctness of perceiver and perceived is acknowledged, then the consciousness relation does not seem identical with or explained by the functional utility of consciousness, however real and vital the latter may be; some element, quality or character of knowledge seems missing in the pragmatic account. And if the transcendence is denied, as it sometimes seems to be, the matter takes on so subjective a cast as to invite criticism on that ground. The net result for many free-lance students, it would be safe to say, is the conviction that transcendence, as a matter of abstract conception, remains uneliminated, unreduced, and equally paradoxical in all theories. Their explanations are important side-lights upon the fact, but the latter also shines essentially by its own light.

Natural realism insists upon this last proposition. There is an irreducible element of self-transcendence in perception. We seem on any theory to be left with this unexplained residuum of fact. To ask "how" it can be, is as useless as to ask how there can be a universe. There are indeed difficulties inherent in the conception, for example, the fact that the transcendence of the true perception seems not to differ psychologically from the spurious transcendence of the false one; or the strange difference between the transcendence of direct sensation and that of the symbols which make up so large

a part of our mental contents. These puzzles are numerous, perhaps insuperable, certainly inevitable for the adherent of realism, but they do not, I am sure, number among themselves the inability to answer the question "how?"

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REVIEWS AND ABSTRACTS OF LITERATURE

Studies in Psychopathology. BORIS SIDIS. Reprint from the *Boston Medical and Surgical Journal,* Vol. 156, Nos. 11–15, 1907.

The contentions of the paper are briefly as follows: What are described as phobias, as obsessions, as impulsions, as psychic epilepsy are best designated as recurrent psychomotor states, and these states are due to the existence of dissociated memories of past events, which, owing to their dissociation, accumulate energy insufficiently balanced or inhibited. The principle of accumulated nerve energy is a very general principle which promises to be of great importance.

The cases which Dr. Sidis adduces for his views are very interesting and deserve a brief recapitulation.

The first case, a young man with many obsessions, a dreamer in his boyhood, under the strain of examinations had to urinate every five minutes, at the risk of distressing bewilderment, unless he was especially absorbed by some interest. An insistent idea of an oozing out of his vitality leads to continual examinations of urine. Under fatigue, in close conversation with a male person, he gets, he does not know why, an "idiotically stupid" and disgusting idea of homosexual relations. He has a *folie du doute* about addressing letters, about putting out the gas, locking the door, without any general weakening of the sense of reality. A mysophobic fear of consumption, occasionally a feeling as if his will or his arm is paralyzed, and lately an idea of tearing out his eyes and having them crushed under his chair or a car, torture him, usually in flashes, at intervals. The urinary trouble and the oozing away of vitality and hesitancy of grasping a glass and the repeated trying of the doors were all traced to painful observations of such difficulties in the grandfather, when the patient was five years old; the abulia and feeling of palsy were traced to the sight of a paralyzed child at six, and the remembrance of his having feigned and felt the paralysis of his right hand when a man with a paralyzed hand entered the schoolroom; on that occasion the feeling of paralysis was so real that he fainted and was sick for a few days (at the age of six or seven). The homosexual tendencies were traced to an attempt at seduction by boys of sixteen when he was a little over eight years old. "This experience lapsed from his conscious memory, giving rise to the apparently unaccountable homosexual ideas at which he felt so much disgust." A green petticoat, the smell of a heated iron, the sight and feel of starched clothes excited him

sexually, also certain features of a woman—traced to a nurse he had up to his fifth year; his ideal of feminine beauty was traced to a child he knew at the age of seven. The mysophobia, the fear of infection, of death, of palpitation of the heart, were all traced to "dissociated subconscious experiences." The inflamed eyes of his great-grandmother and the treatment of his own inflamed eyes with his great-grandmother's eyewashes on one occasion, and stories of people with glassy eyes who can take the eyes out and have them "crushed and cracked by passing objects," were found in a deep hynoidal state to be at the bottom of the eye notion. "The dissociated subconscious experiences [having their origin far back in the dim regions of the patient's child-life], like the moment-consciousness of low types, kept on recurring with the same or similar mental content and psychomotor reactions, giving rise to apparently unaccountable, irrational, insistent ideas and emotions, deeply affecting the patient's self-consciousness."

The second case was that of a shop boy of nineteen with enuresis and peculiar ague-like attacks. The spells were traced to his being forced to sleep a few nights in a dark, damp and cold cellar, and were even elicited by the mere mention of the words dark, damp, and cold—"Those magic words had the power to release the pent-up subconscious forces and throw the patient into convulsions of shakings and shiverings, with feeling of cold and chattering of the teeth. Thus the apparent epileptiform seizures, the insistent psychomotor states of seemingly unaccountable origin, were traced to dissociated systems of a disaggregated subconsciousness." The third patient, with "recurrent states with trophic disturbances and epileptic attacks," was a woman of sixty, with fear of becoming insane, attacks of functional amblyopia, severe headaches, swellings and rashes of the skin, coughing spells, attacks of helplessness and paralysis, occasional visual hallucinations and tinnitus, and an epileptiform convulsion when her throat was touched in a hypnoidal state; all these reactions could be traced to experiences of early childhood (seeing an insane woman at five, followed by frequent dreams and fears of hell and ghosts, effects of early overwork in teaching, then loss of a daughter through consumption, etc.). The fourth patient was a young Pole, unusually timid, with severe headaches and peculiar attacks of hyperesthesia and chilliness of extremities, fear of murderers and of funerals, and threatening dreams, traced to a scare by fire on a cold winter night (at four), and to a more pathological reaction at fire at eight, long rehearsed in dreams. "The experiences lapsed from his consciousness, but persisted in his subconsciousness, and found expression in his dream hallucinations, which appeared as real experiences to his subconsciousness. The content of the dreams is varied, largely depending on the sensory content of the total moment-consciousness, but it refers to the same dissociated systems of the patient's child-life." He had heard much of ghosts and ghouls, and to check a certain growth on his chest the cold hand of a dead woman had been put on his chest when he was about nine; he fainted. Shortly afterwards his parents were beaten by drunken soldiers and his little brother killed, and he escaped, poorly clad, into a cold, deserted barn; after that

the headaches came in full severity. The next case was one of a woman of thirty-eight, with continuous fears of mysterious powers in childhood (which later lapsed into subconsciousness), and later a recurrent feeling of sexual excitement in presence of strange men, based on an episode of similar excitement while sitting opposite a strange young man in a car at eighteen, an excitement which made her "all broke up and prostrated for several days. After a few days she recovered, and then the whole incident faded from her memory." But "it only lapsed from personal consciousness; it became dissociated and subconscious, to come once more to the surface of consciousness on subsequent favorable occasions."

The sixth case is also very interesting: A woman of thirty-five, of neurotic family, married three years, with attacks of paresthesia and paresis of the whole body, and with a profound abhorrence of women, who to her are impurity and filth (an exaggeration of early teaching in a convent brought out again by jealousy of her husband). This "gynophobia" led to many absurd protective reactions and demands on her husband, partly based on sexual symbolism. A search showed frightful dreams of the devil in childhood (once the "devil" actually threw her out of bed and the mattress after her). The paresthesias were picked up from a fall on the spine at twelve. A sexual assault at eighteen led to hysterical attacks; "she really never got fully over it, and the incident, though apparently but faintly present in her conscious memory, has remained active in her subconscious life."

The last case, a Russian of nervous stock, thirty-one years old, developed after a childhood of misery and oppression, and as a revolt over the contrast between the teaching of an ideal Providence and his own real misery. Hence "a struggle full of anguish and agony between a shattered personality and a newly forming self out of a chaotic disaggregated subconsciousness"; from the age of eighteen contrary and blasphemous thoughts in regard to God and filthy words and curses in his prayers, struggle with the evil ideas, which also appear as hypnagogic voices and in nightmares; several periods of hysterical paralysis, later replaced by episodes of sexual thoughts. Evil and "nonsense" thoughts give him no rest. In the street "dreams come to him," then he seems to wake up and does not remember anything; voices talk to him; he can not remember what they say, etc. He asks for help "without weakening my love for my people and my religion." "The patient's condition is the agony of a mortally wounded self struggling against the merciless onslaughts of a pitiless, nihilistic secondary self forming out of chaotic states of a disaggregated subconsciousness."

This is a brief summary of the cases in which Sidis arrived at an elucidation of the "otherwise unintelligible and strange symptoms" by reviving, with his method of hypnoidization, memories floating in the subconscious. In a number of the cases ventilation and reintegration of their memories led to recovery.

The theoretical portion of the paper is in part a reiteration of con-

ceptions developed in former publications of the writer (freely quoted as "I do not think that I shall be accused of plagiarism if I take the liberty of quoting, etc."). He insists that his method of hypnoidization is radically different from that of Breuer and Freud, and from Janet's method of distraction. It is the method of monotony; a condition of enforced quiet, in which the subject is asked to attend to some monotonous stimulus, such as reading or singing or the monotonous beats of a metronome. When the reading is over the patient, with his eyes shut, is asked to repeat what has been read and tell what comes into his mind during the reading or during the repetition or immediately after it, or simply the nature of ideas and images that have entered his mind. Or when the metronome is used and his respiration and pulse are found somewhat lowered, and he declares that he thinks of nothing in particular, he is asked to concentrate his attention on a subject closely relating to the symptoms of the malady or to the submerged subconscious states. Or he looks into a glass of water on a white background with a light shining through the contents of the glass; the metronome is set going and after a while the subject is asked to tell or write the stray ideas about a topic relating to his symptoms. The principle is the production of a subwaking state which may deepen into sleep or into hypnosis if pushed further. The data come up in bits and scraps, often under a constant struggle to maintain the highly unstable hypnoidal state. "The hypnoidal state may sometimes reproduce the original experience which, at first struggling up in a broken, distorted form and finally becoming synthetized, gives rise to a full attack. The symptoms of the malady turn out to be portions, bits and chips, of past experiences which have become dissociated, subconscious, giving rise to a disaggregated subconsciousness. The method of hypnoidization and the hypnoidal states induced by it enable us to trace the history and etiology of the symptoms and also to effect a synthesis and a cure by means of methods which will be described further on."

To understand Sidis we must follow his rather over-systematized conception concerning dissociated states. We meet a certain desire to keep in line his conception of neurone energy evolved in the days when the neurone-retraction theory furnished a pleasing figure of speech equally adapted to neurology and to psychology. From the view-point of general classification he calls the disorders described "recurrent psychomotor states," including insistent ideas, imperative concepts, persistent or periodically appearing emotional states, irresistible impulses, as well as the psychomotor attacks of an apparently epileptic character which may be designated as psychic epilepsy—all are seen in the insanities and still more often in the functional psychoses (when will it be possible to eradicate the artificial contrast between "insanity," "psychoses," and "neuroses"?); also irresistible, uncontrollable attacks appreciated as abnormal and all referable to some few fundamental states persistently present in the subconscious. He classifies them, according to content, into (1) conceptual or ideational (insistent metaphysical and religious puzzles); (2) ideo-motor (scruples about doing things on Sunday, or

other doubts about actions); (3) sensory (including all the insistent emotional states, depression, anxiety, phobias, pains, headaches, the anesthesias and hyperesthesias of hysteria—an original experience which has occurred during the process of dissociation, dissociated and recurring as an attack, with a tendency to form a new parasitic personality); (4) sensori-motor; and (5) motor (visceral and motor disorders, palsies, tremors, and states of psychic epilepsy and tics). According to form the insistent states may be disjointed or desultory (chaotic, without rhyme or reason, unintelligible, or reasoned out and systematized). The latter he refers to as frequently paranoidal.

The common feature, then, is the recurrence "so highly characteristic of the activity of dissociated subconscious states" or moments-consciousness. This fact of recurrence brings the subconscious activities under one perspective view, and biologically in line with the (reflex-like) lower mental states which respond to various stimuli of the external environment with the same amount and quality of sensori-motor reactions. Another feature, the vehemence of the dissociated states, is due to the lack of inhibition, and this leads him to see a special latent energy in these detached "moments" or psychophysical systems, which is further discussed in the last two divisions of the paper—"The Moment Threshold and Dynamogenesis" and "The Principle of Reserve Energy."

The first one of these divisions is a recapitulation of the theories of Sidis. The final chapter, "The Principle of Reserve Energy," is difficult to summarize owing to the not very clearly connected accumulation of many suggestive ideas. It should be read *in toto* by any one wishing to be fair to the author. I merely single out a few passages.

"All the remedial work and all the great work depend on the capacity of the nervous system to accumulate energy. In many cases the inhibitions become too heavy and the thresholds too high. We must loosen the grip of some of the inhibitions and lower the thresholds, thus utilizing a fresh supply of reserve energy."

Medicine must learn to do for the individual what wars and revolutions have done for nations. "By means of special qualitative stimuli and by the reduction of the inhibitions and of the moment-thresholds we are able to utilize energy out of the patient's reserve energy for the reestablishment of disturbed inner relations and dissociations."

This is an idea which has been developed in a different way by James, and also, with far less reference to the extraordinary, by Forel, in his instances of psychotherapeutics, with the help of opening new channels of occupations and interest. A comparison between Forel's cases[1] and the cases and theories of Sidis shows one how numerous are the ways of achieving restoration in disorders so ingeniously reduced to an apparently highly scientific principle by Sidis.

The closing chapter, with its many paradoxes, leaves one with a feeling of awe and wonder at the many things of which one might become the victim. The whole analysis does too little to inquire into the conditions

[1] P. 429 of the decennial volume of Clark University and in his lately translated work on hypnotism.

under which the dissociations take place. It assumes a more or less photographic memory, persisting in "moments or systems of consciousness" in the subconscious, and threatening the person with peculiar antics, all due to the special laws of the life of "neurone-aggregates." In this respect the descriptions which Janet, Jung, and others give of the complexes and special reactions to certain experiences appear much less artificial, more life-like, and more likely to induce those who shape the curricula of medical colleges to heed Sidis's justified criticism of medical education. The report of the cases would gain very much if, instead of the reiteration of the formula adopted in former writings, the writer would give a fuller idea of the process of inquiry and recovery in a few of the cases, with some dates giving the curve of developments a better setting, thus enabling the reader to see to what extent the mechanism of treatment, rather than incidental developments of time and adjustments or principles held by others without the dogmatic apparatus of somehow more or less anatomically segregated memories, brought the desired change. We may feel sure that the conservatism of the practical mind will cease to treat psychopathology with suspicion in the measure in which new observations are made accessible, and free not only of metaphysics of the past, but of metaneurology and premature and excessive systematization directing the attention to that which is as yet in the air and away from the events which had best be described with all the precision with which reports of experiments are written.

Sidis was one of the few who attacked the problems of mental pathology with untiring ingenuity and devotion to the broad teachings of his master William James. But they were given a premature stabilization through an overgrowth of neurological speculation concerning neurone-retraction, neurone-aggregates, neurone-energy, and the application of psychophysical formulas to the neurological units, the moment-threshold, the law of lowering and raising the threshold; and finally we come to that remarkable claim that relative inactivity and lack of inhibition, together with a process of passive absorption of energy by the floating disaggregated unit, lead to an explanation of one of the most difficult problems of psychopathology. Metaneurology and metaphysiology are as dangerous as metaphysics in this field, except, perhaps, in the hand and mind of their originator. Every investigator needs his own reinforcing tautology to satisfy nature's law of extravagance and the worker's pleasure of creation. Janet's analyses may appear too subtle and Freud's too simple; but they move in terms of the facts of observation, and if used with sufficient breadth of view of the clinical evolution of the disorders they are bound to lead us further. Whether Sidis's contributions will do the same will depend on the capacity of the reader to throw off the incrustations of neurologizing tautology and meet the facts in terms of the happenings which seem essential and open to test and experiment.

The observations of Sidis show that, possibly, the mechanism of submersion of painful and insufficiently digested experiences plays its

rôle in psychasthenia as well as in hysteria, and he outlines a plan of practical procedure of reaching submerged complexes which may readily compete with the psycho-analysis methods of Freud, and its modification with the association tests by Jung and the process of direct hypnoidization employed by Janet and others.

The nature and life of the "disaggregated" reactions, and the laws of their evolution and readjustment, have lately received many valuable contributions. The work of the Zürich school tends to add a great deal to a less dogmatic biology of the conditions and forms of after-effects of fairly well-defined experiences; and Sidis's own studies of the nature of posthypnotic hallucinations might tend to do away with much of the need and the burden of neurologizing subterfuges.

It is to be hoped that a fuller account of the actual experiments with the cases of "recurrent psychomotor states" will be published. It would be a valuable addition in this field of vigorous fermentation, and might easily be given so that others, with their individual working hypotheses, could receive direct stimulation and important hints through the very difference of method of attack. Whether Sidis's terminology will find acceptance remains to be seen. There is much dissatisfaction with the terms "hysteria" and "psychasthenia." A return to the in many ways harmless term "recurrent psychomotor states" might rouse the hunger for new solutions. Personally, I prefer the term "substitutive reactions" for the entire group of "psychoneurotic" reactions. But this is not the place to discuss the issue.

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Introduzione al pragmatismo. G. PAPINI. *Leonardo,* February, 1907. Pp. 26–37.

"Whoever should give a definition of pragmatism in a few words would do the most antipragmatic thing imaginable," nevertheless, in the course of a short article, Papini makes an exceptionally clear statement of what pragmatism, in his opinion, amounts to.

"You might say that pragmatism is nothing but a collection of methods for augmenting man's powers." This, however, includes too much. Still worse it is if one says that pragmatism is the theory that gives importance to conduct and substitutes the criterion of utility for that of truth in the choice of theories. There is truth in the statement, but it must be made clear in just what sense the terms conduct and utility are used. A list of such definitions as these would only give the impression "that pragmatism, instead of being something new, comprizes an indefinite number of old things, and that it is already accepted and practised, consciously or unconsciously, by all thinking men." But this would be a wrong impression, "for pragmatism does contain something new, and even though it be practised by many, it is not recognized and accepted by all."

Better than trying to define pragmatism, is to point out how it will affect the procedure of him who practises it. Pragmatism gives a prin-

ciple of selection in the choice of theories. He who uses it "will seek in all ways not to occupy himself with a large part of the classical problems of metaphysics (in particular with the universal and rational explanation of the whole)." Such problems he regards as entirely artificial. "In place of these he will be especially concerned with the methods and instruments of knowledge and of action"; and with their application to whatever specific problems are presented in our own experience. If now one asks how pragmatism differs from other types of philosophy, the answer is that it is not philosophy at all, in the sense of being a system of metaphysics, a theory of the world, a *Weltanschauung*. Pragmatism as such does not commit us to any one of the traditional alternatives in metaphysics. It may, however, eliminate all those alternatives by regarding such theories as "facts among other facts," capable, like them, of natural explanation. One may even say that pragmatism does not exist, but only more or less pragmatic theories, and more or less pragmatic thinkers.

Some of the critics of pragmatism define it as a slightly modified positivism—positivism in the older sense of a positive doctrine with agnostic leanings. Positivism and pragmatism do agree in ignoring a certain class of problems, but they have very different reasons for their indifference. Positivism has been disposed to say that such problems were too exalted for our mental powers; positivism asserts, therefore, a human impotence. Pragmatism finds these problems not too exalted, but too artificial, and indifference to them is a sign not of impotence, but of power. Another common feature is the emphasis laid by both on prediction. But while for positivism prediction is the practical application of a theory, it is for pragmatism a means of defining and interpreting the theory itself. This statement is equivalent to what Papini calls the definition of pragmatism most satisfactory to its friends, namely, "that the meaning of a theory consists entirely in the consequences which may be expected to follow from it." Positivism is only verbally antimetaphysical, while pragmatism (in the sense above explained) is essentially so.

As to the advantages which pragmatism offers, aside from the freedom from the incubus of tradition above insisted upon, there is, first, a saving of time through the elimination of artificial problems, and second, that mental stimulus which comes from the sense of control and from assisting at the formulation of something significant. And those to whom such a point of view may be expected to appeal are of three sorts: First, those characterized by virile energy, who demand that their concepts be effective instruments in the region of concrete realities; second, those who in a somewhat pessimistic way enjoy the effects of mutability; and third, those who in a spirit of independence and pride are unwilling to have their thinking determined for them by previous generations.

Thus Papini. The article is entitled an introduction, and does not pretend to offer a throughgoing account of the matter. We have a right to ask, however, just how the pragmatist, as Signor Papini conceives him, distinguishes between genuine and artificial problems. It is not enough

to declare that a problem is meaningless, without showing just how and why it is meaningless. Professor James has sought to answer this question, and Papini's article would be more effective if he had not so vivaciously ignored this really essential point. Besides, there may be other reasons for regarding a problem as unreal than the one that it makes no difference whether we solve it one way or another.

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JOURNALS AND NEW BOOKS

MIND. October, 1907. *M. Ribot's Theory of the Passions* (pp. 477–505): ALEXANDER F. SHAND. – An exposition and a criticism of Ribot's "Essai sur les passions." Ribot seeks to restore the term "passion" to usefulness. He restricts its meaning to denote not unstable, excited states, but relatively permanent attitudes like sensuality, patriotism, religion. Emotions are brief and unstable. Passion is a "fixed emotion," a "prolonged intellectualized emotion." Children and savages are incapable of passion. They live in a world of emotions. Ribot's distinction between passion and emotion can not be maintained. *The Idea of Development and its Application to History* (pp. 506–534): G. GALLOWAY. – The idea first championed by early Christian writers, most impressively by Herder and Hegel. Mill and his followers recognize no difference between historical and natural laws. Mill and Hegel present two well-defined types of historical philosophy. The chief problem is, in what sense and in what degree does the principle of continuity obtain in historical development? Historical process has flexibility within the limits of continuity. Such process is not necessarily progress. Ultimate values to be realized must be conceived in terms of persons. The crucial difficulty arises in connection with the idea of time. The effort to think out the notions implied in development leads into metaphysics. The ultimate realization of progress is matter not of demonstration, but of faith; but the faith is reasonably justified. *The Inductive Argument for Design* (pp. 535–548): D. H. MACGREGOR. – Three assertions can be made at the beginning. The design argument is not necessarily theological. It is idle to personify the forces of nature. We must exclude from the evidence all results which proceed from finite intelligences. The issue concerns the validity of a category. The evidence is greatest in amount where it is least convincing (biology), and hardly exists where it would be convincing (inorganic nature). Adaptation in biology is explained by Darwinism. More profitable is it to substitute human purposes for purpose and to recognize that they can be fulfilled. It must be shown, however, that they do not cancel each other. Emphasis on finite purposiveness requires proof of world's unity, unless the idea of teleology is to give way to idea of strife. The search should be for some "expression for" the joint activities of individuals, not some receptacle which literally in-

cludes them. *Professor Baillie's Idealistic Construction of Experience* (pp. 549–571): R. F. ALFRED HOERNLÉ. – Professor Baillie summons Hegelians back to Hegel. The book is curiously out of touch with modern thought. The word "experience" does not now lend itself to such a concept as "absolute experience," and the term "reality" is ambiguous. In the present volume it means "essence" rather than "existence." *Discussions: Realism and Infinite Divisibility* (pp. 572–578): GEORGE STUART FULLERTON. – The writer admits that "it sounds idealistic to speak of infinite divisibility as a system of substitutions." Can he restate his opinions on the matter in such a way as to make them unequivocally realistic? We know an objective and a subjective order of experience. We can ignore the subjective order, and study the objective order, overlooking its individual aspects. It may be absurd to speak of infinite divisibility of the subjective order, but not absurd to speak so of the objective order thus abstractly conceived. This is discrete realism. *Critical Notices.* F. C. S. Schiller, *Studies in Humanism:* G. F. Stout. Hastings Rashdall, *The Theory of Good and Evil:* James Seth. William James, *Pragmatism:* F. C. S. Schiller. *New Books. Philosophical periodicals. Note: The Subconscious Factors of Mental Process,* [*erratum*].

REVUE DE METAPHYSIQUE ET DE MORALE. September, 1907. *La prévision dans la théorie de la connaissance* (pp. 559–576): M. CALDERONI. – All knowledge looks to the future, and just as the syllogism is a form in which validity or invalidity of reasoning becomes manifest, whether or no we actually reason in syllogisms, so the truth or falsity of knowledge becomes manifest in its consequences. *De l'esprit classique dans la révolution française* (pp. 577–593): P. LACOMBE. – A criticism of Taine's concept of the Revolution period, and of abstract concepts of peoples in general. *Économie optimiste et économie scientifique* (pp. 596–619): CHARLES RIST. – Consequences of the theories of the distribution of wealth are that (1) attempts to act directly on the price of services affect production, but (2) an equalization of opportunities in the struggle for existence is beneficial. *Études critiques: L'évolution creatrice par Henri Bergson* (pp. 620–670): LOUIS WEBER. *Questions pratiques: Les syndicats de fonctionnaires et les transformations de la puissance publique* (pp. 671–698): C. BOUGLÉ. *Supplement: La philosophie dans les universités. Nécrologie. Livres nouveaux. Revues et périodiques. Agrégation de philosophie.*

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Wundt, Max. *Intellectualismus in der Griechischen Ethik.* Leipzig: Engelmann. 1907. Pp. 103. 2.80 M.

Wundt, Wilhelm. *System der Philosophie.* Dritte umgearbeitete Auflage. 2 Bde. Leipzig: Engelmann. 1907. Pp. xviii + 436, vi + 302.

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NOTES AND NEWS

THAT the theory of the dissociation of matter is gaining acceptance at Cambridge University is set forth by the *Athenæum* for September 28, as follows: "The conversion of Cambridge physicists to the theory of the dissociation of matter which they received with such scorn on its first appearance has for some time gone on steadily, and the memoir by Mr. P. D. Innes in the August *Proceedings* of the Royal Society seems to mark its apogee. Mr. Innes, a scholar of Trinity, who writes with the customary note of thanks for help from the Cavendish professor, states that 'the numerous theoretical and experimental investigations during the past few years of J. J. Thomson, Rutherford, Becquerel and others on the radioactive substances have demonstrated conclusively that the only theory which can satisfactorily account for the phenomena observed is that of atomic disintegration, a process which is apparently going on in several, if not in all, of the elements.' He further says that the expulsion of negatively charged particles from different ordinary metals when struck by the Röntgen rays seems 'due to the disintegration of the atom,' and that 'there is a definite energy of disintegration possessed by the atoms of an element.' He adds: 'That there is a great store of energy in the atom seems now beyond question, and if this reservoir could only become available, all our present conditions might be completely revolutionized.'"

THE following notice is from *Nature* for October 10: "A Greek pamphlet lately published at Athens (P. D. Sacellarius) under the title of 'Αἱ τῶν Lamarck καὶ Darwin Θεωρίαι παρὰ τῷ 'Αριστοτέλει' gives an interesting account of various passages in the works of Aristotle which contain anticipations of modern observations and discoveries. The existence of a placenta in selachians and the sexual dimorphism of certain cephalopods were among the facts well known to the Greek philosopher, who also shows a considerable grasp of the phenomena of correlation, of the influence of external conditions on individual development, and of the rivalry between organisms in which the weakest goes to the wall. It is, however, rightly pointed out that Aristotle, though he had distinctly before his mind the principle of natural selection as propounded by

Empedocles, deliberately rejected that principle as a factor in organic evolution. A passage from the 'Physics,' frequently quoted and almost as frequently misinterpreted, shows conclusively that Aristotle, though no theist, held firmly to the view that the scheme of nature is purposeful and rational; but adaptations, in his opinion, came into existence ready-made, and not by degrees. The difference between this latter position and that of Darwin is clearly emphasized in the present pamphlet, but even here the force of the argument in the passage we allude to does not seem to have been fully realized."

THE Oxford University Press announces "Anthropological Essays, Presented to Edward Burnett Tylor in Honor of his Seventy-fifth Birthday, October 2, 1907," by H. Balfour, A. E. Crawley, D. J. Cunningham, L. R. Farnell, J. G. Frazer, A. C. Haddon, E. S. Hartland, A. Lang, R. R. Marett, C. S. Myers, J. L. Myers, C. H. Read, Sir J. Rhys, W. Ridgeway, W. H. R. Rivers, C. G. Seligmann and T. A. Joyce, N. W. Thomas, A. Thompson, E. Westermarck, with a bibliography by Barbara W. Freire-Marreco.

THE Oxford University Press will soon bring out "Studies in the Medicine of Ancient India: Part I. Osteology, or the Bones of the Human Body," by A. F. Rudolf Hoernlé. The author declares that the medical writers of India in the sixth century B. C. had accumulated a remarkable amount of information on anatomical matters. There was dissection of human bodies, but not, it appears, of animals.

AN English translation, by Katharine Royce, of a paper by Papini entitled "What Pragmatism is Like" appears in the October number of the *Popular Science Monthly*. This translation affords, perhaps, to the English reader the first opportunity to become acquainted at first-hand with the characteristic tendencies of the Italian school of pragmatists.

HOUGHTON, MIFFLIN & Co. announce the publication of the Rotch edition of Emanuel Swedenborg's Theological Works, in thirty-two volumes. This is the first complete edition of Swedenborg's theological writings and the first trade edition of his works published in this country.

PROFESSOR R. M. WENLEY, of the University of Michigan, has been elected to the Baldwin lectureship on religion for the year 1908–09.

L. E. EMERSON, Ph.D. (Harvard), has been appointed instructor in philosophy in the University of Michigan.

THE *Revue Générale des Sciences Psychiques*, edited by M. Ernest Bosc, is announced.